

Title (en)

Cladding pumped fibre laser with a high degree of pump isolation

Title (de)

Mantelgepumpter Faserlaser mit hoher Isolierung der Pumpquelle

Title (fr)

Laser à fibre optique pompé par la gaine avec un degré élevé d'isolation de la source de pompage

Publication

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Application

EP 07824915 A 20071121

Priority

- GB 2007050703 W 20071121
- GB 0623452 A 20061124

Abstract (en)

[origin: GB2444091A] An optical fibre laser or amplifier device is disclosed, comprising: a rare-earth-doped multi-clad optical fibre having at least three cladding layers 801, 810, 811, one or more multimode pump laser diodes 301, and a means of multiplexing a laser signal and the pumping radiation, adapted so that a fraction of the stray signal light originating within the device is captured by one of the intermediate cladding layers of the rare-earth-doped fibre and guided out of the laser structure through the multiplexing system resulting in a reduction in the amount of stray signal radiation 813 impinging upon the pump laser diodes. Alternatively the device (Figure 3) may have a rare-earth-doped multi-clad optical fibre having at least two cladding layers 310, 311, and one or more passive multi-clad optical fibres having at least three cladding layers, one or more multimode pump laser diodes 301, and a means of multiplexing a laser signal and the pumping radiation, adapted so that a fraction of the stray signal light originating within the device is captured by one of the intermediate cladding layers of the passive multi-clad fibre and guided out of the laser structure through the multiplexing system resulting in a reduction in the amount of stray signal radiation impinging upon the pump laser diodes. Other variations and embodiments are disclosed.

IPC 8 full level

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